06-01 Thermal Expansion Stations *Name: _____*

Objective

- Experience thermal expansion.

Materials

- Thermometer
- Ruler
- Beakers of cold water
- Bimetallic discs

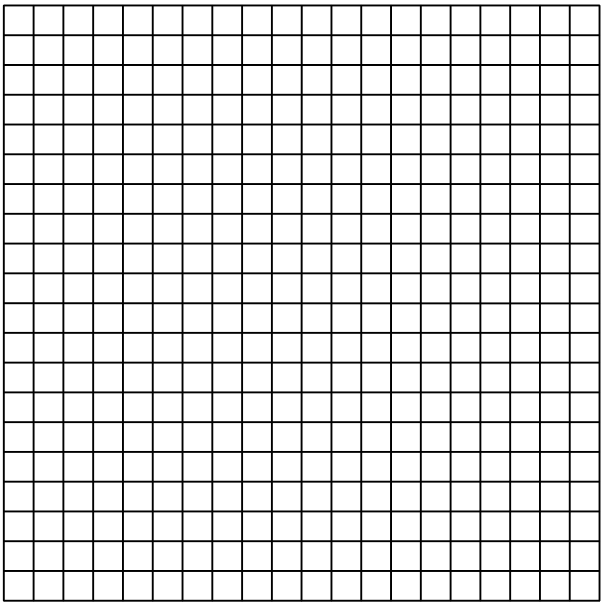
Procedure

Thermometer

1. What is this room's temperature? Record it in the table.
2. Measure the length of the colored fluid in the thermometer in mm.
3. Stick the thermometer in cold water and observe the colored fluid in the thermometer. What happens to it?
   _____
4. What is the temperature of the cold water? Record it in the table
5. After a few minutes, quickly pull the thermometer out of the cold water and measure length of the colored fluid.
6. As the thermometer warms back up, record a temperature and length of fluid.

	Room Temperature	**Cold Water**	**Other Temperature**
Temperature (°C)			
Length of Fluid (mm)			

7. Graph these points on a graph with length on the *y*-axis and temperature on the *x*-axis.
8. What kind of relationship is suggested? _____



Bimetallic Disc

1. The bimetallic disc is curved. Try to press it inside out. What happens? _____
2. Warm the disc by rubbing it vigorously with your hands.
3. Quickly press it inside out and set logo side up on the desk.
4. What happened? _____
5. Why? _____